CHICAGO TUNNEL

Interesting Details of the Mode of Construction. Cost and Other Particulars.

OUR CHICAGO CORRESPONDENCE.

Go, Ill., Nov. 24, 1806. ol, which this city has been congraph will inform you, on Monday next, of the

whill ever attempted in the history of human enterprise.

THE YEADNEY.

For a long time previous to the year 1865 the impurity of the water supplied for drinking purposes was the chief objection to a residence in Chicago. The effect of the Chicago river, recking with the discharge of severage, and the refuse of numerous pacting houses, breweries and distilleries, could often be detected in a sickening, disgusting and nauseating effluvia, which made the drinking water supplied by the water works of Chicago unfit for the use of man. This water was pumped from the shore of the lake, three-quarters of a mile north of the mouth of the river. And horrible reality, the winds drifted the concentrated into of sewerage from the river, along the shore of the lake, to the very mouth of the injet pipe at the water works, where, in a slightly diluted state, it was pumped up and to the city, through one hundred and thirt-one miles of pipe and hydrants, for use in the kitchess and dining rooms of the inhabitants.

il sorts of fithy refuse found their way into the teleors and kettles and pails of the agricord spulation, was revolting fragments of human flesh and lone, from the dissecting rooms of medical colleges, cane floating sex from their forteness course through the sewer into a river, and thence to the city pumping forks. And the disjected portions of dissected corpses/were not unequently seen on the pavenent, whence hey had been scharged from the hydrants.

The nuisance having at length become utterly intolection, the municipal authorities, impossed with the coessity of devising some plan of procure pure atter, gave their earnest authorities and the hydronic section of the hydronic and after considerant numerous schemes, andly resolved to construct a tunnel two lies in length under the waters of ske Michigan. It is found that while the deleterous and corrupting fluences of the river are perceptife for a considerable of the river are perceptife for a considerable processing and corrupting fluences of the river are perceptife for a considerable

through the last thirteen inches of day which separated the workmen.

The bids were received and opened September 9, 1863.

As roany as eight different parties competed for the contract. They were as follows:—James Androws, 19tts-burg, 7n., \$235,548; James J. Duil and James Gowan, Barrisburg, Pa., \$315,139; S. C. Waiker, A. D. Wood and F. W. Robinson, New York, \$315,000; Thomas Williams, John McBenn, A. S. Brown and George Neitson, Gheage, \$400,000; Harvey Nach, Chicago, \$620,000; Wm. Baidwin, New York, \$1,000,000. The terms in which the sirst bid of the foregoing list was expressed were the sirst bid of the foregoing list was expressed were the sirst bid of the foregoing list was expressed were the contract of the proposal of the clay to swell, together with the workmen.

The tendency of the clay to swell, together with the small size of the tunnel and the difficulty of getting a clear atmosphere, made the alignment of it a matter of great difficulty. But so successfully was this difficulty overcome that when the minors reached each other together with the workmen.

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But a support of the tunn

been discovered.

THE LAKE TERMINUS.

It has been already stated that the crib was a temporary structure. Before the tunnel is fully completed, the loose stones placed in the water tight compariments of the crib will be removed and spread upon the top, to keep the large structure from being displaced. They will then be ladd back in hydraulic cement, forming a firm foundation rising from the bod of the lake half way to the surface of the water. Above this the mesonry will consist of massive blocks of granite, belted together with immense iron bars. When entirely completed, with its massive masonry and numerous bolts and bars running from one portion to the other and firmly blieding the whole together, the lake terminus, it is not unreasonable to suppose, will reasist for ages the discress gains and storms of Lake Michigan. Upon the top of the structure will be erected a pernament lighthouse, constructed and maintained at the appense of the city.

structure will be erected a permanent lighthouse, constructed and maintained at the expense of the city.

The leaks shart.

The next step in the progress of the work, and by no means the least difficult, was the sinking of the fron explander or shaft through the interior of the crib. This cylinder to shaft through the interior of the crib. This cylinder is sixty-three test in length and two inuntred and three thousand pounds in weight. It is divided into seven sections, each of which is nine feet in length, nine feet in diameter and two and a half inches in thickness. These goven iron cylinders, making the iran part of the shaft, were one by one connected and lowered to the bottom of the lake, within the open space or "weil" in the counter of the crib. The cylinders were then, after having both brought to exactly the right position, forced downwards into the clay, to a depth of twenty-the feet. The powerful pressure necessary to the accomplishment of this object was obtained by the pneumatic process, the water being wholly excluded from the cylinder, and a vacoum being created by means of air pumps.

The masonry was then commenced. In the meanting the engine for hoisting and the necessary machinery were made ready and the bricks and cement and other materials and supplies which were expected to be required during the winter, were collected and stored on the crib.

FROM ALBANY.

SPECIAL CORRESPONDENCE OF THE HERALD.

time when the "old man's" political fortunes in the State were waning. Philosopher Greeley's star was just then in the full ascendant. "H. G." at that time had an indisputable majority of the republicans of the Legis-lature, but, as I remember, his troops were hadly officered. Charles Augustus Dana, then "H. G.'s" friend, and Camp, the sordid, lod with all the means supposed to be requisite, but they did not comprehend the canvass either of means, numbers or members. All that white Judge Harls, having found that the forces of Weel Judge Harris, having found that the forces of Weed for Evarts, and Field, Opdyke & Co. for Greeley were nearly balanced, stood intact with his dozen profession friends, threatening both sides to go over, first to on while the canvass was seething, and in tifteen minutes support after the Chicago Convention of 1860, so Judge Harris promised to place his power over federal patronage

But instead of love hatred came, and was the offspring of the alliance. This fact cropped out rather inaus-piciously in the autograph letter of Senator Harris seat to Mayor Opdyke on the occasion of the imputed libel,

in the senatorial election is count confidently on twice the number of Harris men to start with that the Senator had in the last contest, when he was elected. These will also prove to be intact in the struggle. The loss of Clark B. Cochrame, of this city, and George S. Pierce, of Ulster, will, however, prove seriously damaging to his chances. Besides the incumbents will have another essential advantage in the fact that there was more than an implied understanding that Governor Fanton should contribute all the power of his position towards the Senator's re-election, as a condition precedent to the Governor's renomination. To show that the question was under the contribl of the Governor's opponents, you need only to have cited the fact that the Governor's associate (Alvord) was at the same time thrown overboard as incontinently as he has himself been in the habit of doing such things. At the time of the hast radical Gubernatorial Convention the friends of Harris, Greeley and Roscoe Conkling (the latter a contingent candidate for the Senatorship and may be againg accompliate to the he haste to be a convention to the Control of the latter a contingent candidate for the Senatorship and may be againg senatorship and may be againg accomplicate to the Render he night up to a conann which he sought the governorship, as anxious to hold because it is known to "p and accordingly a plodge for Harris was extrining and the templation removed in the Alverd in the Lieutenant Governorship, man Woodford was substituted because he hought of the "throne of David," and because may be said, as it is, that "jit will not assent a substituted because he are thought of the "throne of David," and because he was the said, as it is, that "jit will not assent as the said as it is, that "jit will not as a substitute of the said as a substitute of the sa Section 19 Company of the control of

## SHERMAN AND CAMPBELL.

OUR HAVANA CORRESPONDENCE.

The Mexican Ministers in Havnun-Reception by the Captain General-The Susque hanna to Remain There a Week to Awalt News from Vera Craza &ce. HAVANA, Nov. 20, 1866. The steamer Liberty, Capiain Rollins, from Havana on

and brings us interesting and important news.
On Sunday morning, the 18th inst., an American wa deamer boye in sight, which alone is always a topic of interest here. But you may imagine our surprise when we learned that it was the United States steamer Susque-hanns, Commodore James Alden, as we thought her to, be on her way to Vera Cruz. Knowing as we all did from your columns the purport of her voyage and th eminent persons whom she conveyed, her arrival at this port created a glowing sensation which we had not ex-

perienced for a long time past.

The names of the passengers, all more or less distinguished, are:—Lieutenant General Wm. T. Sherman and Celonel Andeureid, Chief of Staff; the Hon. Lewis D. Campbell, Envoy Extraordinary and Minister Plenipotentiary to the republic of Mexico; Mr. E. L. Plumb, Secretary of Legation; Henry Conquest Clarke, Private Secretary; Lieutenant Commander Preble, Captain Bishop, Captain Alfred Taylor, Dr. Lyon, and other gentlemen more or less connected with this embassy.

Soon after the Susquehanna anchored up the bay, the

Soon after the Susquehanna anchored up the bay, the

In the afternoon the party disembarked, and a sufficient number of carriages having been pre-engaged for the occasion, while Senor Miguel de Embil had sent his own carriage for General Sherman and suite; Mr. Minor, our Consol General, accompanied the party through the town and round the suburbs, up to the Cerro. After calling upon a few friends, where they partock of some refreshments, General Sherman, Hon. Mr. Campbell, Mr. Minor, and one or more of the party, dined at the resi-dence of a congenial friend.

BOOK NOTICES.

THE POSTICAL WORKS OF ALPRED TENNYSON, PO

FLOWER-DE-LUCE. By Henry Wadsworth Long-fellow. EVANGELINE. A Tale of Acadie. By Henry W.

THE VIRION OF SIR LAUNFAL. By James Ri

Fields, Boston.

Those four elegantly illustrated volumes are the first instalment of the holiday books which, in anticipation of Christmas and New Years, are beginning to illuminate the bookstores throughout the land. The poems themselves have, of course, a perennial charm, independent of their illustrations, but the latter challenge special attention at this date. Those of "Fleur-de-Luce" are by H. Fenn, G. Perkins, S. Eytinge, Jr., Wm. Wand and S. Colman, Jr. Those of "Evangetine" are by F. O. C. Darley. Those of "The Vision of Sir Launfal" are by K. Eytinge, Jr., and those of "Maud Muller" by W. J. Hennesy. All are engraved by A. V. S. Anthony, except a Eytinge, Jr., and those of "Maud Muller" by W. J. Hennesy. All are engraved by A. V. S. Anthony, except a few in "Maud Muller" by Marsh and by Davis. Wood engraving has not hitherto attained in this country, even when applied to the mest costly publications, a high degree of excellence. But a marked improvement is already visible. The use of the hand press is almost in dispensable for wood cuts, and we may add that the sure and delicate touch of woman's hand has already proved its value in this department of artistic labor. It offers a new and tempting field in which, we are confident, woman's work will successfully combine the useful and woman's work will successfully combine the useful and the ornamental. To alter Burns' lines:—

The 'prentice han' will do for man, But let us have the women, O! THE CULPRIT FAY. A Poem. By Joseph Rodman

OTR ARTIST IN PERC. [Fifty Drawings on Wood]. Leaves from the Sketch Book of a Traveller, during the Winter of 1865-6, by Geo. W. Carle-ton, Author of "Our Artist in Cuba," &c. Carleton, New York.

Carleton, New York.

The first of the preceding volumes is a superb edition of "The Culprit Fay," which has been truly described as "the most poetical of American poems." It is enriched with one hundred illustrations by Arthur

carried us last year to Cuba, and amuses us with similar comtcalities of pen and pencil. We should be delighted to make such yearly trips with him until he shall have circumnavigated the globe and put a girdie (of fun) around the earth, like Puck.

RED LETTER DAYS IN APPLETHORFE. By Gall Hamilton. Ticknor & Fields, Boston. Stories of Many Lands. By Grace Greenwood. Ticknor & Fields.

THAT GOOD OLD TIME; OR, OUR FRESH AND SALT TUTORS. By Vieux Moustache. Hurd & Hough-ton, New York.

THE KING'S RING. By Theodore Tilton. Hurd & Houghton. GENERAL LEE AND SANTA CLAUS. By Mrs. Louise Clack. Elelock & Co., New York. This is another instalment of Holiday Books, but par-

ticularly intended for the delectation of the little people.
"Red Letter Days" gives fresh proof of Gall Hamilton's talent for telling stories to children—a rare and happy faculty. Grace Greenwood in her "Stories" tells child ren about children in many lands, England, Scotland, Ireland, Switzerland, France and Italy, and in our own Winslow Homer and M. F. H. De Haas have furnished the illustrations to "That Good Old Time," a lively in a six months residence on one of the rocky promon tories which jut out from the eastern coast of Massa chusetts. "The King's Ring" is illustrated by Frank Jones, and its red lettered and illuminated pages are quite dazzling. Mrs. Louise Clack's Christmas Gift to her Little Southern Friends," will be welcomed by many

THE SOUTHERN PICTORIAL PRIMER AND FIRST READER—THE SOUTHERN ELEMENTARY SPELLING BOOK—THE SOUTHERN PICTORIAL SECOND READER—THERD READER—FOURTH READER. Richardson & Co. New York.
These books have been prepared under the able supervision of Professor George F. Holmes, LL.D., of the University Series" of educational works now in process of publication. All must applaud every right effort to revive the influences of education so rudely interrupted, and for so long a time, by war. It is an encouraging sign of the times that the best and most cultivated unids in the South are directly enlisted in this enterprise.

SOUTHERN HISTORY OF THE WAR. By E. A. Pol-

SOUTHERN HISTORY OF THE WAR. By E. A. Pol-lard, editor of the "Richmond Examiner." Two volumes in one. Charles B. Richardson: New York.

At present we must be content with merely chronic-ling the fact that Mr. Pollard's "Southern History of the ume. The peculiar opportunities of the author for observing the "wheels within wheels" of and his bitter partisanship and sectionalism, together with his forcible style, partly original and partly acquired from his intimacy with the late John M. Dantelone of the best specimens of Carlyle's "Able Editor" ever produced by this country—all enabled him to collect an accumulation of facts, and present a striking array of views, which cannot be overlooked by historical

ther himself.

The Great Resellton: Its Scorer History, Rive,
Progress, and Disarraors Fathers. By John
Misor Botts, of Virginia. The Political Life of
the Author Vindicated. Harper & Brothers,
New York.

Minor Botts, of Virginia. The Political Life of the Author Vindicated. Harper & Brothers. New York.

The author's portrait, with its strongly characterized features and expression, is most appropriately prediced to this "autobiography." Mr. Botts places on the title page this epigraph of his own:—"I know no North, no South, no East, no West. I only know my country, my whole country, and nothing but my country." And this epigraph, however commendable its spirit, artisingly illustrates at the same time the egregious egotism of the author, who keeps up throughout the work an ince and irre of I'a. He persecutes the poor first personal pronoun, in all its cases, as unreleatingly as he would war with any Fouthern secessionist or Northern copperhead. He must have put out every "I" in every font in the printing office of Messrs. Harper, extensive as that is. Cosar's ippe and Lamartine's his are both nowhere before John Minor Botts omnipotent "I." Nevertheless, the work of Mr. Botts is a carious and important contribution to the history of American politics.

The Sanctuant. A story of American politics.

The Sanctuant. A story of the civil war. By George Ward Nichols, author of "The Slory of the Great March," with illustrations. Harper & Brothers, New York.

Our civil war is a mine which the novelist as well as the historian will work to advantage. But it is yet too soon for any one to attempt much more than to record the impressions and the insidents within his own personal aphere of experience and observation. This task, honosity performed, will provide historian and novolist alike with invaluable material. So far as Mr. Nichols has almed at this by the occasional descriptions of scenery and of campaign life which he has introduced into "The Sanctuary," his efforts are in the right direction. But he so clumsly mixes up fact and fiction, and, worse still, he seems to take such unwarrantable liberties with the real names of private individuals, as to make it obvious that he is rushing prematurely into print as a would-b

THE COLLOQUIES OF EDWARD OSBORNE, CITIZEN AND GLOTH WORKER, OF LONDON. By ye author of "Mary Powell." Walter Gibson, Publisher and Stationer, New York.

and Stationer, New York.

This is an elegant reprint of a charming little work by Miss Manning, ye author of "Mary Powell," and a daughter of one of Charles Lamb's old friends. How Charles Lamb himself would have delighted in reading it! Tanokersy's "Henry Esmond" does not reproduce a period of past time with more minute faithfulness, both in spirit and form, than this revival of life on London bridge and in London town during the days of the bright boy king Edward, the "good and godly" Lady Jane, "Bloody" Mary and "our glorious sovereigo lady" Elisa-

PRACTICE OF THE DISTRICT COURTS AND THE MA-RINE COURT. By Stephen H. Turnbull. Baker, Voethis & Go. Second edition. 1866. The present edition of this book of practice, the seas of which is favorably known to the legal profession, contains all the amendments of 1865 and 1866.

## THE FASHIONS.

OUR PARIS SPECIAL FASHIONS CORRESPONDENCE.

Preparing for Complegue—Alexander Dumas on Woman's Rights—Novelties in Dress Combs and Houddresses—Bonnets and Has Strings—Full Dress and Indoor Robes, Jack-ots, Shawls and Under Garments—Hints About Luces. PARIS, NOV. 9, 1866.

der of our autumn sun; secondly, the approaching fea-tivities at Complegne, and thirdly, comments on the prevailing sombre styles adopted by the ladies of the demi-monde, who walk about in black and no crinoline.

demi-monde, who wake about in once and no ormouse.

Little Madame Cruchette, who is the joyous, pretty
wife of a seriously plain man, was lately near me at the
Bois, and turned quite round every time she met one of
these mourners clad in flowing crape and jet cascades. She at last thus expressed her opinion:—" It is become but what a pity they have not the consolation of fee

that they really are in mourning."

Of course Madame Cruchette's legal partner did not respond to the feeling and sententiously replied—" My dear Cruchette, there was once upon a time a model woman by the name of Artemesia, who had a tomb erected to the memory of her husband that cost nearly a willow of any inverse and she leved him on the state she million of our money, and she loved him so that she swallowed a spoonful of his ashes every morning." "Of the menument's or of her husband's?" inquired

Madame Cruchette in complete consternation.

us call him Cruchon. "How very nasty!" exclaimed the young wife.
"Well, there is no accounting for tastes," she added, and what more she said I did not hear, for the Bois was

rather crowded, only I determined that this scrap of conjugal conversation should be recorded.

Other scraps, too, I have, but of a different nature.

elist, had toyed with a few moments, and on the ivory ribs of which lie had while talking written the following pencillings:—"A brune deceives and a blonde betraya.

Women are born to subjection from the day of their
birth; those who resist are not women, but men."

snid sweets expressive. Tortoise shell is a thing no nevel writer has, I should think, ever attempted to scribble on, though the way it is now made up into combs would admit of a few observations. The new gallery combs are very artistic; they are generally made of very light tortoise shell (scalle blende), and large black or rich brown spikes stand out of the broad rim.

Both light and dark are worn very high over the crossparting of the hair. Some have rich tortelse shell pendants, chains or Egyptian weights hanging from the

ing unless used with watte ance.

The new headdresses are perfectly levely. They are mostly in the Odalisque style. Enumelled beads, fromed leaver, volvet or brenzed foliage are made up in cardons, leaver, volvet or brenzed foliage are made up in cardons.

A prestry string is the white ground with deep capacine. Dorder on one side and light capacine (accrutions) on the other; or what is Institutable, a deep gold pleasant border of two shades on white.

Ruby satin robes are very much favored for full dress, and I must here announce the round of an article of the toilet which looks most out of place and Institleus in print; in rack, out of place in all the locabilites I have seen it, and which however, is in a great hurry to be introduced to busing, "or a "unstit." They are considered executal under court trains and long awcoping black roles. They are made of springs of course.

A genteel afternoon toilet is made or violet cashmere, trimined with violet zain cressfolds, and worn with violet satin decays.

The same in blue is equally fashionable. Genome filigree ornaments are much worn on velve.

Gray popilins are vandyked con amore over bright colored place potitions.

The prettied novelties for in-door wear are high white cashmere chemisette, worked on the two tronts with ceries slik, coral branch pattern.

White cloth jeckets and formidable buttons called "geants," or more suitably in plain English, cheese plates, are worn in open carriages and at the races.

A practical belera-veste for evening wear is made of within gross train, bordered with swan's down. Those little spanish jackets will be worn next winter over low bodies after dunctin, and thus protoco one from draught, which curvies cottilos amateurs will court in spite of remonstrance.

The new habitenable colors are beig and somice, the

derout, than even Mrs. Beecher Stowe's "plous and impossible" "Uncle Tom," is alone exough to damn the book.

Milly, or The Hidden Cross. By Lucy Ellen Guernsey, author of "The Sign of the Cross," Ac. Loring, Boston.

This story of school girl life might serve for a pendant to the marvellous unpresent of school boy life up 242.